

ABSTRACT OF THE DISCLOSURE

5 A method of determining the number of magnetic particles within a sample using a tuned circuit having a capacitor and a coil. The method comprises:

- 10 a. determining the difference in the resonant frequency of the tuned circuit when the sample is exposed to a magnetic field generated by the coil and when the sample is not exposed to the magnetic field generated by the coil; and
- b. using the difference in the resonant frequency to determine the number of magnetic particles within the sample.